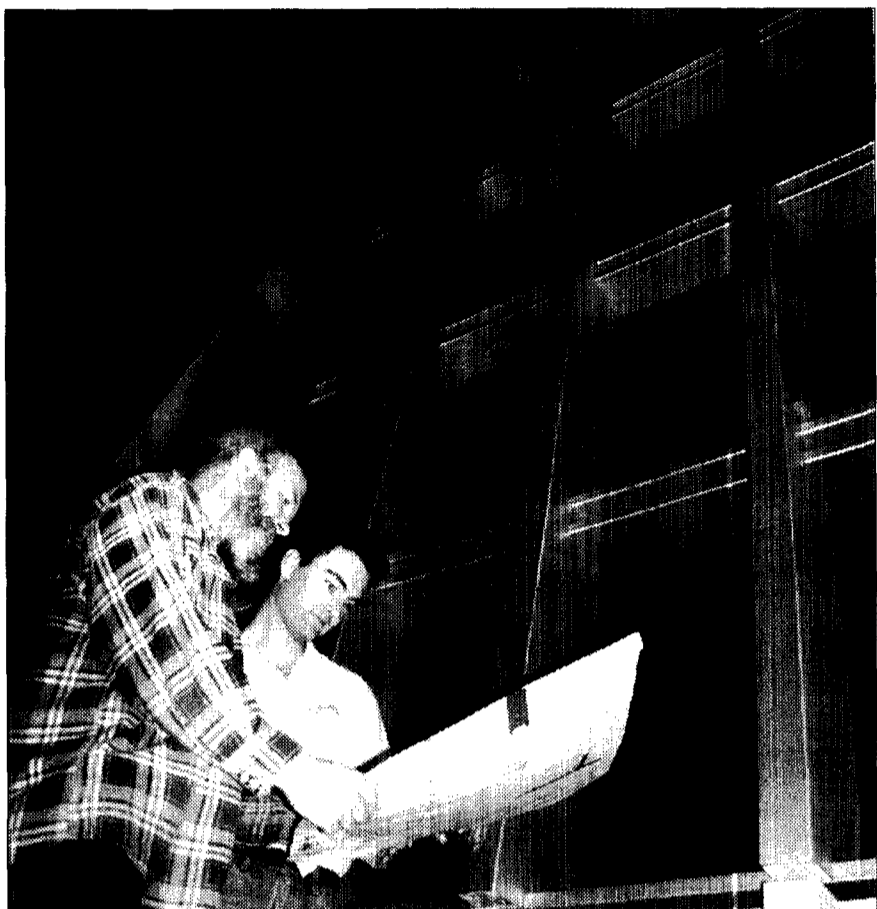


UBC REPORTS

Volume 44, Number 1

January 8, 1998

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Cavin Wilson photo

Ready, Set...

Theatre technicians Don Griffiths, left, and Jim Fergusson look over the plans for a piece of set design that dominates the stage in George F. Walker's *Beautiful City*, the next Theatre UBC production at the Frederic Wood Theatre. Called the "Crispix" because of its resemblance to the breakfast cereal, it plays a central role in the production. *Beautiful City* runs Jan. 21-Feb. 7. It opens the spring season of theatre at the Frederic Wood and the BC TEL Studio theatres which also includes Bertolt Brecht's *The Good Person of Setzuan*, Samuel Beckett's *Endgame* and *A Mouthful of Birds*, by Caryl Churchill and David Lan.

Official university airline gets Board approval

The UBC Board of Governors has approved an agreement which designates Canadian Airlines International Ltd. as the university's official airline.

The agreement is designed to significantly increase rebates to faculties and departments based on the volume of air travel completed by faculty and staff.

"The ability of our faculty and staff to travel on university business and research is integral to our mission," said UBC President Martha Piper. "By combining the considerable purchasing power of the university and directing the majority of our business to a single airline, we will generate substantial revenues which will benefit faculty and department travel budgets."

The agreement, which took effect Jan. 1, will coincide with an amendment to the university's travel policy requiring employees to use two designated travel agencies — North South Travel and The Rider Travel. The travel agencies were selected by a university travel committee, with campus-wide representation.

By streamlining the number of travel agencies, designating one official airline

carrier, and introducing a ticketless air travel system, the university is estimated to gain close to \$1 million per year in revenues and savings.

This compares to the estimated \$75,000 the university would have generated by maintaining the status quo in 1998. By negotiating an overall agreement, the university was able to avert shortfalls due to recent trends in the travel industry, including the capping of commissions earned from airlines. In addition, the continued use of travel agencies not contracted with UBC would have resulted in the charge of service fees for each ticket issued to university departments. Connie Fabro, UBC's travel manager, estimates that at an average of \$30 per ticket, service charges on the 12,000 tickets issued per year by the university would have totalled \$360,000.

The agreement does not change university policy which states the traveller may retain for personal use any frequent flyer points accumulated from university travel.

In addition, the Board of Governors

See **AIRLINE** Page 2

Federal fund pinch puts research at risk

by Hilary Thomson

Staff writer

UBC scientists are asking the public to join them in a letter-writing campaign aimed at increasing federal funding for medical research.

Cuts to medical research funding through the federal Medical Research Council (MRC) have had a significant impact at UBC. More than 30 new UBC projects of sufficient calibre to have been funded last year received no monies this year.

And with limited budgets, only 50 per cent or fewer grant holders are offered funding renewals. Researchers who have lost funding can apply to other granting agencies, however the time delay can mean that the opportunity for a UBC discovery is lost.

"We're having to throw out accomplishments in mid-stream," says Biochemistry Dept. Head George Mackie,

MRC's regional director who also serves on a peer review committee for biochemistry and molecular biology research.

Budgets at the MRC have been reduced by 13 per cent since 1994, with \$10 million expected to come off the base budget's bottom line in 1998, according to Dr. Henry Friesen, director of the MRC. Canada now invests less money in health research than the other six leading industrialized nations in the G7.

Janet Werker, associate vice-president, Research, joins Mackie in urging fellow scientists, students and research administrators to write to federal health, finance and industry ministers.

"An important part of this grant funding is the provision of adequate money for supporting graduate students, post doctoral fellows, and promising undergraduates to ensure the continuation of high calibre research" says Werker.

Ten UBC scientists were unable to ob-

See **RISK** Page 2

Close shave spells pledge success



Fourth-year Pharmaceutical Sciences classmates Raffaella Amoruso (left) and Jobina Clancy give Allan Rajesky a close shave.

Fourth-year Pharmaceutical Sciences student Allan Rajesky had a very Canadian item on his Christmas wish list this year — a toque.

Charged with spearheading UBC's annual Class Act campaign for his faculty, Rajesky promised to shave his head if 100 per cent of his fourth-year classmates participated by making a donation toward a faculty student project.

It seems his classmates were keen on supporting the faculty, and on seeing Rajesky hairless. The graduating class raised \$2,068 with 100 per cent participation and his classmates fired up the razor. Rajesky's efforts paid off, as Pharmaceutical Sciences Dean Frank Abbott had promised to match the students' contributions two-to-one if 100 per cent participation was achieved. In addition, UBC matches contributions to any faculty with 100 per cent participation. The dean threw in an additional sum to bring the total raised to \$9,000.

See **PLEDGE** Page 2

Inside

AIDS Alert

3

A pilot program takes health science students behind the AIDS crisis

Gene Guy

8

Profile: There's more to Prof. Tony Griffiths than expertise in ancient plants

"a discovery pipeline for molecular medicine"

MICHAEL HAYDEN

UBC Centre for Molecular Medicine and Therapeutics; Scientific Director, Canadian Genetic Diseases Network

Think About It.

UBC RESEARCH

Letters

APEC protest attracts diverse opinions

Editor:

Although the vast majority of press coverage on the APEC protester pepper-spray incident was very sympathetic towards the demonstrating university students, the demonstrators — by trampling the RCMP-installed fence, charging at the RCMP and attempting a "citizen's arrest" of Suharto and Jiang Zemin — basically got what they deserved.

Not to be mistaken, I do not in the least support the likes of the despicable above-mentioned leaders of Indonesia and China; however, one must

realize that if the chaotic protest had instead involved anti-abortionist demonstrators outside an abortion clinic, they could have been beaten by police, and none of the dominating left-wing elements in the established press would have given a damn.

The fact remains that the fence-trampling students who got pepper sprayed while protesting the APEC conference would have deserved sympathy had they not been so fanatical.

**Frank G. Sterle
White Rock**

LETTERS POLICY

UBC Reports welcomes letters to the editor on topics relevant to the university community. Letters must be signed and include an address and phone number for verification. Please limit letters, which may be edited for length, style and clarity, to 300 words. Deadline is 10 days before publication date. Submit letters in person or by mail to the UBC Public Affairs Office, 310 – 6251 Cecil Green Park Road, Vancouver B.C., V6T 1Z1, by fax to 822-2684 or by e-mail to janet.ansell@ubc.ca.

Editor:

Responding to criticisms of human rights violations at the University of British Columbia in November, Lloyd Axworthy commented that "the best testimony to Canada's commitment to human rights is that we have an open court system in which people who feel that police have over-reacted" can seek redress (*The Vancouver Sun*, Dec. 11, 1997).

Good point Lloyd.

Now, what about the politicians, cabinet ministers and members of the Prime Minister's staff who wound the hapless cops up and set them on their unlawful course? Who will call them to account?

**Prof. W. Wesley Pue
Faculty of Law**

Risk

Continued from Page 1

tain personnel awards that supplement or provide the income for top researchers this year, although in past years they would have qualified, Mackie says.

There is also direct job loss for research technicians and associates as projects are abandoned or reduced, harming the university's ability to train new scientists, he adds.

Budget reductions often mean only established researchers obtain funding and new investigators can have difficulty gaining a foothold.

"The effect is that we're counter-selecting against young risk-taking researchers," says Mackie. "Yet these are the people we will need in the future."

Students are discouraged by the current research climate, he says, and many are moving away from academic research.

Also, attracting faculty to an uncertain research environment

is difficult and many investigators opt to work in other countries.

"Health research in Canada is hurting," Mackie says. "It's time we bring our spending on health care research into line with the efforts of our competitors."

Mackie points out that organ transplants, the development of the polio vaccine and cancer therapies are areas where Canadian scientists have made major contributions.

In the last 12 years, UBC research has created 71 spin-off companies, employing close to 1,450 people and attracting more than \$630 million in private investment.

Those wishing to voice their concerns about reduced funding for medical research are encouraged to contact their member of Parliament or the ministers of Finance, Health or Industry before the end of January.

Pledge

Continued from Page 1

The money will be used to support student participation in conferences.

The faculty has set a precedent for the Class Act campaign, with an early start on a campaign that is scheduled to begin officially Feb. 2, 1998.

The campaign has taken a slightly different approach this year, asking students to make a one-time immediate contribution to a faculty project of their choice rather than splitting the gift over three years.

Class Act is one of several fund-raising appeals undertaken by the university's Development Office as part of the Annual Fund.

Another is the Alumni Appeal, which will wrap up at the end of the university's fiscal year on March 31. It is making solid progress toward its \$1.18-million goal with 11,550 alumni already contributing \$806,000.

The Alumni Appeal is driven by groups of student, staff and volunteer callers who work to contact alumni. Student callers from the Faculty of Medicine have held the record for the past three years for the largest amount raised by a single group.

This year, led by second-year medical student Vu Truong, 43 second-year medical students raised \$36,095 from 286 alumni over three nights.

"We're always very impressed by the level of commitment shown by our alumni as well as current students," said Geraldine Dunnigan, Annual Fund manager. "It's clear that many students take away with them experiences that provide a strong and lasting connection to the university."

Other Annual Fund appeals include the Anniversary Giving, Parents, Faculty/Staff, and Wesbrook appeals.

The Faculty/Staff Appeal appears to have received a boost this year thanks to faculty and staff members who decided to designate UBC as the beneficiary of their United Way donations.

Last year's Annual Fund campaign raised nearly \$1.7 million. This year's goal is \$1.9 million.

Airline

Continued from Page 1

approved an amendment to the university travel policy which enables the designated travel agencies to book with a competing airline if:

1. There are no Canadian Airline International (CAI) flights to the required destination or there are no seats available on CAI flights to the required destination;

2. There are seats available on CAI flights to the required destination but the competing flights are non-stop where the CAI flight has one or more stops;

3. There are seats available on CAI flights to the required destination but such CAI flights do not have departure or arrival times within two hours for North American travel or four hours for international travel of competing flights;

4. There are seats available on CAI flights to the required destination but such CAI flights are more expensive than competing flights; or

5. One or more of the unions with which CAI has a collective agreement is in a legal position to strike.

Booking University travel:

UBC's designated travel agencies

■ **North South Travel & Tours**

#101, 2025 W. Broadway
Vancouver, BC V6J 1Z6
Tel: 736-7662 or 736-7447
or 1 800 665-1882
Fax: 736-6513
Web Site:
www.nstravel.bc.ca

■ **The Rider Travel/Rider University Services**

#310, 1090 W. Georgia St.
Vancouver, BC V6E 3V7
Tel: 331-1576 or
1 800 575-1576
Fax: 681-1590
Web Site:
www.universitytravel.rider.ca
Login: ubc
Password: ubc0797

UBC TRAVEL MANAGER

Connie Fabro
1st Floor, GSAB
e-mail: connie.fabro@ubc.ca
Web Site:
www.purchasing.ubc.ca/
ubc/travel/contents.htm



THE UNIVERSITY OF BRITISH COLUMBIA

Post-APEC Forum

for the campus community

"What can we learn from the APEC experience about the role of universities in a democratic society?"

Tuesday, Jan. 20, 1998

12:00-2:00pm, Chan Centre for the Performing Arts

Moderator: Prof. Lynn Smith, former dean of Law, UBC

Panelists: Arnab Guha, UBC Graduate Student, University Forum
Martha Piper, President, UBC
Wesley Pue, Professor, Faculty of Law
Student panelist to be confirmed

Wax - it

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Edwin Jackson

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UBC REPORTS

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Managing Editor: Paula Martin (paula.martin@ubc.ca)

Editor/Production: Janet Ansell (janet.ansell@ubc.ca).

Contributors: Stephen Forgacs (stephen.forgacs@ubc.ca),

Sean Kelly (sean.kelly@ubc.ca),

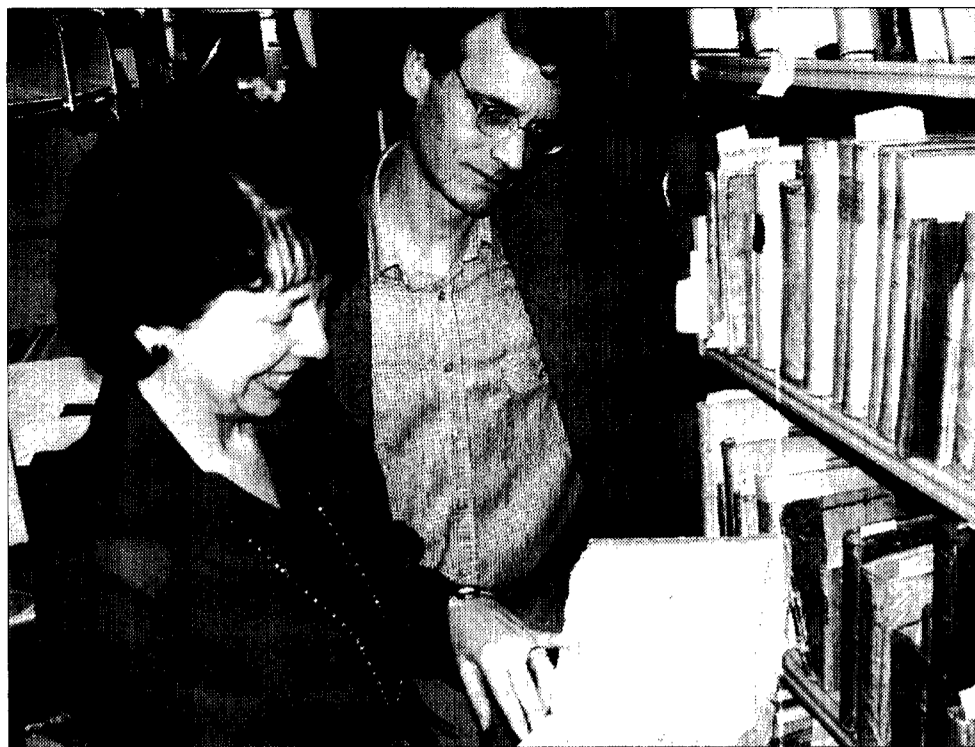
Hilary Thomson (hilary.thomson@ubc.ca),

Gavin Wilson (gavin.wilson@ubc.ca).

Editorial and advertising enquiries: (604) 822-3131 (phone), (604) 822-2684 (fax). UBC Information Line: (604) UBC-INFO (822-4636)

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Hilary Thomson photo

Special Collections Head Brenda Peterson and Renaissance literature scholar Assoc. Prof. Mark Vessey browse one of the many treasures in the Library's Aguzzi-Barbagli collection. The 146 books replicate a 16th-century Italian nobleman's library.

Lecture series probes mysteries of the brain

The winter 1998 Science First! series of nine seminars dedicated to exploring the brain starts today with one called Development: How Your Brain Gets Wired.

Today's lecture, which starts at 12:30 p.m. in room 100 of the Wesbrook Building, examines how a nervous system develops and is maintained. Presenters include assistant professors Vanessa Auld, Zoology Dept., Timothy O'Connor, Anatomy Dept. and Jane Roskams, Psychiatry Dept.

The lecture series takes place every Thursday. Worming Through Our Memories is the topic of a lecture on learning and memory that takes place

next Thursday, Jan. 15. The following week, Baby Listen — Baby Talk examines behavioural development in children.

Other presentations discuss imaging of the brain, degenerative brain disease, and artificial intelligence and robots.

The lecture series, designed by Assoc. Dean of Science Jülyet Benbasat, aims to interest undergraduate students in scientific investigation and discovery. Researchers from departments including physics, neurology, computer science and psychology are participating.

For further information call 822-5552 or check www.science.ubc.ca/seminars/seminarseries.htm.

In Memoriam

Keith Brimacombe: 1943 - 1997

A partner in innovation

Keith Brimacombe, a professor in the Faculty of Applied Science with an international reputation as a leader in metallurgical process engineering, died suddenly on Dec. 16 in Vancouver. He was 54.

During his tenure at UBC, the former director of UBC's Centre for Metallurgical Process Engineering built a large collaborative research group in metallurgical process engineering consisting of about 70 faculty, graduate students, research engineers and technicians.

His fascination with how things work, which he developed while growing up in an Alberta farming community, led him into the sweltering confines of Canadian steel mills on a quest to understand and improve the processes involved in steel production.

He built his reputation in industry and academia by combining complex mathematical modelling with fundamental studies of physical and chemical phenomena, and direct measurements from industrial processes. He put up with the heat and dirt in steel mills to obtain in-plant measurements during various stages in metallurgical processes and then used that information to complement computer models and laboratory research.

Brimacombe, who played an important role in building partnerships between uni-

versities and industry, was appointed president and chief executive officer of the Canada Foundation for Innovation (CFI) on Oct. 1, 1997. The foundation was established last year by the federal government to provide financial support for the infrastructure needs of the Canadian research sector.

Among the honours bestowed on him were the Canada Gold Medal for Science and Engineering, sponsored by the Natural Sciences and Engineering Research Council (NSERC); the B.C. Science and Engineering Gold Medal; the Ernest C. Manning Principal Prize; and the E.W.R. Steacie Memorial Fellowship. He was an officer of the Order of Canada and a fellow of the Royal Society of Canada.

Born in Nova Scotia, raised in Alberta, he obtained a B.A.Sc.

from UBC and a PhD at the Imperial College of Science and Technology, University of London. He joined UBC in 1970.

He is survived by his wife Margaret, daughters Kathryn and Jane, his mother, four brothers, and two sisters and their families.

The Dr. J. Keith Brimacombe Scholarship Fund has been established in his memory. Donations can be made care of the Toronto Dominion Bank, 2105 W. 41st Ave., Vancouver, B.C. V6M 1Z7.



Brimacombe

Collection holds tips for duelling challenged

by Hilary Thomson

Staff writer

Challenging someone to a duel and in need of expert advice?

You can get your answers in the UBC Library, but you will need to be fluent in 16th-century Italian.

The 146 Italian Renaissance books donated to the university's Special Collections replicate an Italian nobleman's library, says Mark Vessey, associate professor of Renaissance literature in the Dept. of English.

"Reading or simply owning the right books was thought to be ennobling in itself, whatever the circumstances of one's birth," Vessey says.

The collection, compiled until his death in 1995 by Danilo Aguzzi-Barbagli, professor emeritus of Italian and Hispanic Studies, provides a core bibliography of late Renaissance humanism.

Authors include pre-Renaissance writers such as Dante and Boccaccio as well as works from Renaissance philosopher Erasmus and the poet Tasso. There are commentaries on the works of Aristotle,

Horace, and other classical writers as well as books of moral and practical advice to princes, courtiers and gentlewomen.

Written in Italian or Latin the books vary in size from large folios to Renaissance pocket books. The pages between the leather or vellum covers are smooth and crisp and engravings on the title pages are crystal clear. Medieval manuscripts have been recycled as covers for some of the volumes.

Several volumes in the collection are more than 450 years old, and were published within 100 years of the invention of print.

"We don't have many contemporary editions in the humanities from this period," says Brenda Peterson, head of Special Collections. "This gift substantially adds to our Renaissance holdings."

The Aguzzi-Barbagli collection will be used as a teaching exhibit to help students understand the society of the period. Stored in the humidity and temperature-controlled stacks of Special Collections, the books can be viewed by calling Brenda Peterson at 822-4879 for an appointment.

Course opens students' eyes, minds about AIDS

by Hilary Thomson

Staff writer

A team of UBC faculty and community health specialists are creating a new way to teach students about HIV/AIDS.

Called the Interprofessional Elective in HIV/AIDS Care, the pilot project is the only one in Canada to combine interdisciplinary classroom study with clinical experience in HIV/AIDS.

"No-one's done an elective like this before," says Dr. Andrew Chalmers, associate dean of Medicine. "But with the spread of this infection we desperately need professionals for the future."

The project has two aims: to prepare students in the health-care professions to respond to the HIV/AIDS epidemic and its consequences, both biological and social, and to develop a model for interprofessional learning.

Pharmaceutical Sciences student Fleur Zadka was one of 11 third- and fourth-year students from her faculty and the School of Nursing and Faculty of Medicine who took the three-week-long pilot course. To her, exposure to a variety of instructors was a key part of the experience.

"We talked to aboriginal spiritual leaders, transgendered people and natural medicine practitioners," she says. "Everyone really cared about the topic. Those presentations came from the heart."

Learning with other health science students was also an advantage, says Zadka.

"We asked each other questions and learned the dilemmas we face in our professions."

Hearing about addicts shooting up 20 times a day and the insensitive treatment some patients received from health-care workers made Zadka confront the magnitude of the problems in Vancouver's Downtown Eastside.

"Students were able to put a face to this illness," says Sharon McKinnon, a lecturer in Pharmaceutical Sciences and a member of the course design team. "Also, being exposed to the perspectives of other health science students encouraged them to focus on the patient, rather than one particular drug or diagnostic test."

Health sciences faculty, community health workers and members of AIDS Vancouver collaborated to design the course.

Interprofessional student teams and teaching, mentors for discipline-specific learning, case-based learning and feedback or reflective sessions were key features of the pilot.

Faculty included front-line practitioners who taught in classrooms and clinical placements.

"Because the epidemic is dynamic and unstable, treatment issues are complex. Having practitioners as teachers is one way to ensure that we're offering current information," says Irene Goldstone of the B.C. Centre for Excellence in HIV/AIDS. She and Nursing Prof. Anne Wyness designed the first course on HIV/AIDS offered by a Canadian university in 1993. It provided the foundation for the new pilot interprofessional program which they also helped design.

Students completed a satisfaction survey at the end of the course and were tested before and after on content knowledge and confidence in working with patients. Students also talked about their experiences and their feelings in the reflective learning sessions.

"Students' perception of HIV/AIDS as an individual illness changed," says Terry Trussler, the research consultant who evaluated the program. "By the end of the course, they understood it as a complex social issue."

The course is a collaborative project of UBC and the B.C. Centre for Excellence in HIV/AIDS and AIDS Vancouver.

It was one of four projects funded by the National HIV/AIDS Strategy of Health Canada. Memorial and McGill universities and the University of Montreal are all exploring ways to teach students about the unique challenges of HIV/AIDS care.

The elective will be offered again in the summer and expanded to include social work students. It will also be lengthened to six weeks to reduce its intensity and clinical experiences will offer more exposure to working interprofessional teams. A greater emphasis on case-based learning is planned and the interprofessional content will be expanded.

The design team is also looking for funding to ensure the course is sustained in the curriculum.

"We want to use this course to further the movement toward interprofessional education that involves the community," says Wyness. "We want to build a Canadian model."

Calendar

January 11 through January 24

Sunday, Jan. 11

Concert

Beethoven Piano Sonatas. Robert Silverman, piano. Chan Centre at 3pm. Tickets available through Ticketmaster 280-3311 or Chan Centre box office 822-2697.

Monday, Jan. 12

Lecture

Writing The Hereafter: Afterlife And Resurrection In Hellenistic Judaism And Early Christianity. Alan F. Segal, Prof., Religion, Barnard. Buchanan D-339 at 12:30pm. Call 822-2515.

Biochemistry and Molecular Biology Discussion Group Seminar

Tissue Specific Expression of Na/Ca - Exchange Isoforms. Jonathan Lytton, U of C. IRC#4 at 3:45pm. Refreshments at 3:30pm. Call 822-7156.

Mechanical Engineering Seminar

Engineer or Entrepreneur: How To Combine Technology And Business. Ted Heidrick, Director, Advanced Technology Programs. CEME 1204 from 3:30-4:30pm. Light Refreshments. Call 822-3770.

Astronomy Seminar

Galaxy Evolution Revealed By The Canadian Network For Observation Cosmology Survey. Simon Morris, Herzberg Institute of Astrophysics, Dominion Astrophysical Observatory. Hennings 318 at 4pm. Refreshments at 3:30pm. Call 822-4134.

Green College Resident Speaker Series

The Meaning Of Time: Evolution Of The Cosmos. And How People Fit In. Paul Bergbusch, Physics and Astronomy. Green College at 5:30pm. Call 822-1878.

Science And Society

Is There Any Point In Talking About Social Construction In The Natural Sciences? Ian Hacking, Philosophy, U of Toronto. Green College at 8pm. Call 822-1878.

Tuesday, Jan. 13

UBC Humanists' Society Lecture

Religion And Equality: Are They Compatible? John Westwood, Executive Director, BC Civil Liberties Association. Scarfe 206 at 12:30pm. Free donuts. Call 739-9822.

Animal Science Seminar Series

Plasma Gonadotropin (FSH And LH), Progesterone IGF-I Profiles Following Unilateral Ovariectomy In Cattle. Mahesh Mohan, Animal Science. MacMillan 166 at 12:30pm. Refreshments. Call 822-4593.

Botany Seminar

A Physical Model Approach For Estimating Wave Induced Mortality In An Intertidal Kelp Species Hedophyllum Sessile. Kristen Milligan, Botany. BioSciences 2000 from 12:30-1:30pm. Call 822-2133.

Microbiology And Immunology Seminar Series
EXT. A Putative Tumor Suppressor, Alters The Expression Of Cell Surface Glycosaminoglycans. Frank Tufaro, Microbiology and Immunology. Wesbrook 100 from 12:30-1:30pm. Call 822-3308.

Metals And Materials Engineering Seminar

1997/98 Elliott Lecture - Using Your Technical Education In The Steel Industry. Jan Kor. Frank Forward 317 at 3:30pm. Call 811-1918.

Centre For Applied Ethics Colloquium

Business Ethics: University Industrial Relations. Wayne Norman, Centre for Applied Ethics. Angus 413 from 4-6pm. Call 822-5139.

Green College Speakers' Series

On The Construction Of Psychopathologies. Ian Hacking, Philosophy, U of Toronto. Green College at 5:30pm. Reception Graham House from 4:45-5pm. Call 822-1878.

Wednesday, Jan. 14

Orthopedics Grand Rounds

Selected Cases From Division Of Orthopaedics Trauma Morbidity And Mortality Rounds. Dr. Blachut, Orthopaedics. Vancouver Hosp/HSC, Eye Care Centre Aud. at 7am. Call 875-4192.

Centre For India And South Asia Research Seminar

The Growth Of Naxalite Groups In Tribal Hinterland Of India. Rina Mitra, Centre for India and South Asia Research. Choi 120 from 12:30-2pm. Call 822-2629.

Centre For Japanese Research Seminar

Growth And Transportation In A North Pacific Resource Regime: Japan's International Fisheries. Roger D. Smith, History/Centre for Japanese Research. Choi 129 from 12:30-2pm. Call 822-2629.

Concert

Wednesday Noon Hours. Andrew Dawes, violin; Eric Wilson, cello; Rena Sharon, piano. Music Recital Hall at 12:30pm. \$3 at the door. Call 822-5574.

Seminar

Achieving Sustainable Redevelopment In Vancouver: The Southeast False Creek Experience. Mark Holland, City of Vancouver. Lasserre 205 from 12:30-1:30pm. Call 822-9314.

Obstetrics And Gynecology Research Seminars

Chimeric Oncoproteins Expressed By Gene Fusions In Paediatric Solid Tumors. Dr. Paul Sorenson, Pathology, Children's Research Centre. BC Women's Hosp. 2N35 at 2pm. Call 875-3108.

IAM Colloquium

Strongly Correlated Electrons. Ian Affleck, Prof., Physics and Astronomy. CSCI 301 at 3:30pm. Call 822-4584.

Geophysics Seminar

Real Time Telemedicine Using Shared 3-Dimensional Workspaces Over ATM. Geophysics and Astronomy 260 at 3:30pm. Call 822-1814.

Science And Society Seminar

Summation And Discussion Of 'The Social Construction Of What?' Series. Ian Hacking, Philosophy, U of Toronto. Green College at 5pm. Call 822-1878.

Canadian Studies

Trading Identities: Native Art And The Souvenir In Northeastern North America, 1700-1900. Ruth Phillips, Director, MOA. Green College at 7:30pm. Call 822-1878.

Thursday, Jan. 15

Human Kinetics Seminar

Wuchereria Bancrofti: A Student's Observations Of The Parasite Causing Elephantiasis And Hydroceles In Haiti. Jeff Beselt, War Memorial Gym 100 from 12:30-1:30pm. Refreshments. Call 822-3913.

Science First! Lectures Exploring The Brain

Learning And Memory: Worming Through Our Memories. Dr. Peter Graf, Psychology; Dr. Catherine Rankin, Psychology. Wesbrook 100 from 12:30-1:30pm. Website: www.science.ubc.ca/seminars/seminarseries.html or call 822-5552.

Earth And Ocean Sciences Colloquia

Acoustic Exploration Of The Coastal Ocean. David Farmer, Institute of Ocean Sciences. GeoScience 330-A at 12:30pm. Call 822-3278.

NeuroScience Seminar

Ten Outstanding Problems In Neuroscience. Dr. Patricia S. Churchland. IRC#1 from 3:45-5pm. Call 822-0225.

Genetics Graduate Program Seminar Series

Salmonella Typhimurium: From Genetic Maps To Genome Sequencing. Kenneth E. Sanderson, Biological Sciences, U of Calgary. Wesbrook 201 at 4pm. Refreshments. Call 822-8764.

Medieval And Renaissance

Keeping Secrets In A Dark Age. Paul Dutton, History, SFU. Green College at 4:30pm. Call 822-1878.

Friday, Jan. 16

Pediatric Grand Rounds

The Emerging Genetics of Spindle Cell Tumours in Childhood. Dr. Poul Sorenson, Molecular Pathology, BC's Children's Hospital. GF Strong Auditorium at 9am. Call 875-2307.

Pharmaceutical Sciences Seminar

Some Issues In Scientific Reasoning: A Research Case Study Involving Cyclosporine In Renal Transplant Patients. Dr. Marc Levine, Pharmaceutical Sciences. Cunningham 160 from 12:30-1:30pm. Call 822-7795.

Lecture

Parts Of Modernity: 19th Century Invention Of Figurative Art In Oceania. Prof. Nicholas Thomas, Australia National U. Lasserre 102 at 2:30pm. Call 822-2757.

Geography Colloquium

What Has Health Promotion To Do With Geography Or Vice Versa? Martin Taylor, McMaster University. Geography 229 from 3:30-5pm. Call 822-2663.

Chemical Engineering Weekly Seminar

Development Of An Integrated Process For The Treatment Of Pig Manure. Prof. Xiaotao Bi. ChemEng 206 at 3:30pm. Call 822-3238.

Cultural And Media Studies Interdisciplinary Group

How To Predict The Past: From Post-Traumatic Amnesia To Repression. Mikkil Borch-Jacobsen, U of Washington. Green College at 4pm. Call 822-1878.

Sunday, Jan. 18

UBC Housing Presentation

No-Yes - An Acclaimed Program On Sexual Assault Prevention.

Place Vanier Commonsblocks at 7pm. Call 822-9141.

Monday, Jan. 19

IAM Distinguished Colloquium Series

Nonlinear Conservation Laws And Shock-Capturing Numerical Methods. Randall J. Levesque, U of Washington. CSCI 301 at 3:30pm. Call 822-4584.

Mechanical And Engineering Seminar

Scaling The Vertical Structure Of Sea Breezes: Atmospheric Science In Action. Douw Steyn, Prof. Geography; Chair, Atmospheric Science In Action. CEME 1204 from 3:30-4:30pm. Light refreshments. Call 822-3770.

Astronomy Seminar

CO As A Possible Tully-Fisher Observable: A New Determination Of The Distances To The Galaxies. Tess Lavezzi, Herzberg Institute of Astrophysics, Dominion Astrophysical Observatory. Hennings 318 at 4pm. Refreshments at 3:30. Call 822-4134.

Green College Resident Speaker Series

Citius, Altius, Fortius: Non-Ethical Solutions. Michael Edwards, Human Kinetics. Green College at 5:30pm. Call 822-1878.

Seminar

Reduce Revenue Canada's "Take" Of Your Investments' Returns Through Private Client Money Management. Gary Goossen, Loring Ward Investment Counsel Ltd. University Golf Club from 7:00-9:00pm. Call 733-9335

Science And Society

Constructing Desirable Futures: The Quite Understandable Ecosystem Scenario Tool (QUEST). John Robinson, Director, Sustainable Development Research Institute. Green College at 8pm. Call 822-1878.

UBC Housing Presentation

No-Yes - An Acclaimed Program On Sexual Assault Prevention. Totem Park Commonsblocks at 8pm. Call 822-9141.

Tuesday, Jan. 20

Post-APEC Forum

Forum For The Campus Community. President Martha Piper. Chan Centre from 12:00-2pm. Call 822-4636.

Animal Science Seminar Series

Issues In Canadian Agriculture: Animal Welfare, Food Safety, The Environment. R. Blair, Prof. Animal Science. MacMillan 166 at

UBC REPORTS

CALENDAR POLICY AND DEADLINES

The UBC Reports Calendar lists university-related or university-sponsored events on campus and off campus within the Lower Mainland.

Calendar items must be submitted on forms available from the UBC Public Affairs Office, 310-6251 Cecil Green Park Road, Vancouver B.C., V6T 1Z1. Phone: 822-3131. Fax: 822-2684. An electronic form is available on the UBC Reports Web page at <http://www.ubc.ca> under 'News.' Please limit to 35 words. Submissions for the Calendar's Notices section may be limited due to space.

Deadline for the January 22 issue of UBC Reports — which covers the period January 25 to February 7 — is noon, January 13.

12:30pm. Refreshments. Call 822-4593.

Microbiology And Immunology Seminar Series
Invasion And Spread Of An Alpha Herpes Virus In The Mammalian Nervous System. Lynn Enquist, Princeton. Microbiology and Immunology. Wesbrook 100 from 12:30-1:30pm. Call 822-3308.

Metals And Materials Engineering Seminar
Directional Solidification In Superalloys. Raji Soundararajan. Frank Forward 317 from 3:30-4:30pm. Call 822-1918.

Oceanography Seminar
The Effect Of Buoyant Diatom Biofilms On The Erodibility Of Sublittoral Sediment In A Microtidal Estuary. Terri Sutherland, Oceanography, Earth and Ocean Sciences. BioScience 1465 at 3:30pm. Call 822-3278.

Green College Speakers' Series
Creativity And Constraints: Myths And Anti-myths In Architecture. Ken MacCrimmon, Director, Peter Wall Institute; Rhodri Windsor-Liscombe, Chair, Individual Interdisciplinary Studies Graduate Program. Green College at 5:30pm. Reception Graham House from 4:45-5pm. Call 822-1878.

First Nations Discussion Circle
Apache Pass: The Racialization Of Space In Prince Rupert. Charles Menzies, Anthropology and Sociology. Green College at 8pm. Call 822-1878.

Wednesday, Jan. 21

Orthopedics Grand Rounds
TBA. Call Hannah Mahoney 875-4192.

Concert
Wednesday Noon Hours. Nancy Hermiston, soprano, Terence Dawson, piano. Music Recital Hall at 12:30pm. \$3 at the door. Call 822-5574.

Our Living Planet Lecture Series
UBC's Impact On Global Warming. John Robinson; Dale Rothman. IRC #3 from 12:30-1:30pm. Call 822-3827.

Obstetrics And Gynecology Research Seminar
Role Of LH In Ovarian Hyperandrogenism In Anovulatory Women. Dr. Anthony Cheung, Obstetrics and Gynaecology. BC Women's Hosp. 2N35 at 2pm. Call 875-3108.

Calendar

January 11 through January 24

Comparative Literature

Chaos, Rhizome And Creolization In The Caribbean: Discursive Convergences And Divergences In The Works Of Edouard Glissant And Antonio Benitez-Rojo. Anny Curtis. Green College at 5:30pm. Call 822-1878.

History And Memory:

Repositioning Of The Past
Historical Distance And The Reception Of Enlightenment Historiography. Mark Phillips. History. Green College at 7:30pm. Call 822-1878.

Theatre At UBC

Beautiful City. Patrick MacDonald, director. Frederic Wood Theatre at 7:30pm. Continues to Feb. 7. Call 822-2678.

Senate Meeting

Regular Meeting Of The Senate. UBC's Academic Parliament. Curtis 102 at 8pm. Call 822-2127.

Thursday, Jan. 22

Board of Governors Meeting

Open Session Begins At 8am. Fifteen tickets are available on a first-come, first-served basis on application to the Board Secretary at least 24 hrs before each meeting. OAB Board and Senate room. Call 822-2127.

Science First! Lectures

Exploring The Brain

Behavioural Development: Baby Listen - Baby Talk. Geoff Hall; Janet Werker. Psychology. Wesbrook 100 from 12:30-1:30pm. Website: www.science.ubc.ca/seminars/seminarseries.html or call 822-5552.

CICSR's Distinguished Lecture Series

Observing The Earth From Space: A Global Information System. John MacDonald, MacDonald Dettwiler. CICSR/CS 208 from 4-5:30pm.

Refreshments. Call Linda Sewell 822-6894.

Policy Issues In Post-Secondary Education In BC

A Research Plan For UBC. Bernard Bressler, VP Research. Green College at 4:30pm. Call 822-1878.

Friday, Jan. 23

Pediatric Grand Rounds

Congenital Malformations In Two Northern Aboriginal Populations: Will More Folate Make a Difference? Dr. Laura Arbour, Medical Genetics. GF Strong Auditorium at 9am. Call 875-2307

Mathematics Colloquium

TBA. Niky Kamran, Mathematics and Statistics, McGill U. Math 100 at 3:30pm. Refreshments Math Annex 1115 at 3:15pm. Call 822-2666.

Notices

UBC Medical School

Needs male and female volunteer patients of any age, either healthy or ill to help students learn how to interview and complete a physical examination (external only). The total time for each teaching session is between two-four hours, Tues-Thurs. pm. Travel expenses will be paid. Call Vancouver Hospital/HSC 875-5943.

Art Exhibition

Roy Arden, a selection of works from 1991-97. Morris and Helen Belkin Art Gallery. Tues-Fri 10am-5pm; Sat-Sun 12-5pm. Continues to Dec 21; Jan 2-25/98. UBC students, staff, faculty free with valid ID. Call 822-2759.

Children's Art Program

The UBC Department of Curriculum Studies — Art Education invites children 7-10 to participate in a unique visual art program at the UBC Child Study Centre Mondays 5-6:15pm. Feb 2-Mar 30/98. Call 822-5321.

Art Exhibition

Recalling The Past: A Selection Of Early Chinese Art From the Victor Shaw Collection. MOA Dec 2 - Aug 31/98, Wed-Sat 11am-5pm; Tues 11am-9pm. Call 822-5950.

Research Study

Relationship Study. Hetero men (25 years of age and older), in relationships of greater than six months needed for a UBC study of relationships. Complete questionnaire at home, receive \$10. Call 822-2151.

Volunteers Needed

To play the part of a patient in a clinical exam Jan. 16, 1998. Potential Rehabilitation Science students welcome. Please call 822-7392.

Museum of Anthropology

Current Exhibits. From Under The Delta: Wet-Site Archaeology In The Lower Fraser Region Of B.C. Continues to April 1. 6393 N.W. Marine Drive. Hours are: Wed.-Sun., 11am-5pm; Tues., 11am-9pm (free 5-9pm). Call 822-5087.

Snow?

"The University will remain open during snow storms but may cancel or reschedule classes on a university-wide basis and/or curtail non-essential services in response to the conditions."—UBC Policy on Disruption of Classes/Services by Snow, May 1994

In the event of extreme snow conditions, listen to CBC Radio, CKNW and other local radio stations for information.



LANGUAGES

Non-credit conversational classes start

January 24th

- Day, evening or Saturday morning classes for adults
- UBC in Florence, Italy: May 3-24, 1998
- UBC in Guadalajara, Mexico: May 13-28, 1998

822-0800

Language Programs and Services
UBC Continuing Studies
www.cstudies.ubc.ca/languages

French

Spanish

Japanese

Mandarin

Cantonese

Italian

Punjabi

Arabic

Greek

Swedish

Writing Centre

The UBC Writing Centre offers six- or twelve-week non-credit courses emphasizing English writing for academic, technical and research purposes. Classes are held on the UBC campus.

Six-Week Courses (New!)

Writing Essays about Literature
Tuesdays and Thursdays, Feb 24-Apr 2, 12:30-2 pm. \$175.
Tuesdays and Thursdays, Feb 24-Apr 2, 4:30-6 pm. \$175.

Persuasion and Rhetorical Analysis
Tuesdays and Thursdays, Feb 24-Apr 2, 12:30-2 pm. \$175.
Tuesdays and Thursdays, Feb 24-Apr 2, 4:30-6 pm. \$175.

Getting Ahead with Grammar
Tuesdays, Feb 24-Mar 31, 7-10 pm. \$175.

Preparation for Professional Communication I: Case Studies for Memos and Letters
Mondays and Wednesdays, Feb 23-Apr 1, 4:30-6 pm. \$175.

Preparation for Professional Communication II: Oral Presentations
Mondays and Wednesdays, Feb 23-Apr 1, 4:30-6 pm. \$175.

Twelve-Week Courses

Writing 097: Intermediate Composition
Saturdays, Jan 17-Apr 4, 9:30 am-12:30 pm. \$245.

Writing 098: Preparation for University Writing and the LPI
Several sections are offered. Students should consult the UBC Registration Guide or contact the Writing Centre for details. \$245/section.

Writing 099: Advanced Composition
Wednesdays, Jan 17-Apr 15 (no class Feb 18), 7-10 pm. \$245.

Report and Business Writing
Saturdays, Jan 17-Apr 4, 9:30 am-12:30 pm. \$245.
Wednesdays, Jan 21-Apr 15 (no class Feb 18), 7-10 pm. \$245.

Information: 822-9564
www.cstudies.ubc.ca/wc

THE UNIVERSITY OF BRITISH COLUMBIA

Director Institute for European Studies

The University of British Columbia invites applications/nominations for the position of Interim Director of the newly established Institute for European Studies within the Faculty of Graduate Studies.

The Interim Director will play a major role in co-ordinating the initial activities of the Institute, including the refinement of the goals of the Institute and the harnessing of intellectual and financial resources in support of those goals. The successful candidate for Interim Director will be a distinguished scholar in the study of Europe. The candidate must possess strong leadership and interpersonal skills, and have a proven background in administration and community service in an academic environment.

Applications should be submitted by Feb. 14, 1998, however the search will continue until the position is filled. Applications, accompanied by a curriculum vitae and names and addresses of three referees, should be forwarded to the IES Director Search Committee, by fax (822-9202), or by mail to the Faculty of Graduate Studies, #180-6371 Crescent Road, Vancouver, B.C. V6T 1Z2

More detailed information pertaining to the Institute for European Studies is available on our Web site at <http://www.grad.ubc.ca/iesdirector.html>, or queries may be directed by e-mail to search@mercury.ubc.ca. UBC hires on the basis of merit and is committed to employment equity. We encourage all qualified persons to apply. In accordance with Canadian immigration requirements, this advertisement is directed in the first instance to Canadian citizens and permanent residents of Canada.

UBC Student Development Awards

Nominations

The Campus Advisory Board on Student Development invites nominations from UBC students, faculty and staff for the UBC Student Development Awards.

The award is for exceptional contribution or significant improvements to the student experience and learning environment at UBC during the past 3 years in the following categories:

- For AMS, GSS, or UBC student service
- Individual Award
- Undergraduate Program or Department
- Graduate Program or Department

Nominations should include a written statement from the nominator and two supporting letters outlining the exceptional contributions or improvements.

Nomination deadline:
Jan. 31, 1998

Directed to:
Vice-President, Student and Academic Services,
Old Administration Bldg,
6328 Merer Memorial Road

News Digest

A free program aimed at preventing acquaintance sexual assault on campus will be presented at Place Vanier Residence on Jan. 18 at 7:00 p.m. and at Totem Park Residence on Jan. 19 at 8:00 p.m.

Speaker Katie Koestner is a date rape survivor and well-known acquaintance sexual assault awareness and prevention advocate. She has presented her program "No/Yes" at more than 500 campuses in North America. Topics include sexual communication and the role of alcohol and drugs in sexual assault.

Koestner co-authored the guidebook *Total Sexual Assault Risk Management Strategies for Colleges*.

For more information contact Deborah Johnson at UBC Housing and Conferences, 822-9141.

•••••

UBC Continuing Studies is offering its second on-line, international course starting Jan. 12. The course, *Selecting and Using Technologies for Distributed Learning (EDST 561)*, is the second in a series of on-line courses in a post-graduate certificate program.

The first course, *Developing, Designing and Delivering Technology-based Learning*, was offered last September with 42 students registered from 17 different countries. In addition to registration through UBC, the Virtual University (ITESM) in Monterrey, Mexico, registered another 65 students.

Aimed at academics and instructors in post-secondary education, the course uses the Internet and a CD-ROM to enable participants to analyze and apply criteria for selecting and using educational technologies at both an institutional and a course level. The course is the second of five graduate-level independent courses developed in collaboration with ITESM.

•••••

The first of three campus forums on transportation issues hosted by Gord Lovegrove, director of Transportation Planning, is being held today in the SUB Conversation Pit at 12:30 p.m. Students, faculty, staff and members of the community are encouraged to voice their concerns and discuss ideas such as a subsidized transit pass or Trek Card. Future sessions are scheduled for Feb. 5 and Mar. 12.

Lovegrove is also launching the first campus-wide electronic survey, planned for the week of Jan. 22. The survey asks for details about commuter routes and methods. Respondents are also asked to describe incentives that would encourage them to use alternative transportation. Surveys will be sent to everyone with a campus e-mail address; paper copies are available on request. Survey respondents will be eligible for prizes such as bicycles and transit passes.

More information on transportation issues, including a discussion paper can be found on the new Trek Web site at www.trek.ubc.ca.

Copies of the discussion paper are also available from Lovegrove's office by calling 822-1304. An executive summary will be published in a future issue of *UBC Reports*.

THE UNIVERSITY OF BRITISH COLUMBIA



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Classified

The classified advertising rate is \$16.50 for 35 words or less. Each additional word is 50 cents. Rate includes GST. Ads must be submitted in writing 10 days before publication date to the UBC Public Affairs Office, 310 - 6251 Cecil Green Park Road, Vancouver B.C., V6T 1Z1, accompanied by payment in cash, cheque (made out to *UBC Reports*) or internal requisition. Advertising enquiries: 822-3131.

The deadline for the January 22 issue of *UBC Reports* is noon, January 13.

Services

UBC FACULTY MEMBERS who are looking to optimize their RRSP, Faculty pension and retirement options call Don Proteau, RFP or Doug Hodgins, RFP of the HLP Financial Group for a complimentary consultation. Investments available on a no-load basis. Call for our free newsletter. Serving faculty members since 1982. Call 687-7526. E-mail: dproteau@hlp.fpc.ca dhodgins@hlp.fpc.ca

PRESCHOOL available for 3 and 4 year olds. Mornings or afternoons. UBC Child Care Services. Call 822-5343.

DIAL-A-MENU No more thinking of what to cook for dinner! Add inspiration to your daily cooking. Cook simple, great, healthy foods. Save time, money and stress. To hear this week's menu call 990-4593.

SINGLES GROUP Single people who enjoy science or nature are meeting nationwide through Science Connection! Info: P.O. Box 599, Chester, NS, B0J 1J0; www.sciconnect.com/ or call 1-800-667-5179.

Accommodation

BROWN'S BY UBC B&B Rooms for rent short or long term in a comfortable house very close to UBC. Prefer graduate, mature students. Call 222-8073.

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Calling all UBC Authors!

Are you the author of a book, or the creator of a video, cd, cd-rom, or electronic book published between January 1997 and December 1997?

If so, we would like to hear from you so that you can be included in the **8th Annual Reception for UBC Authors**.

This reception, hosted by President Martha Piper and University Librarian Catherine Quinlan will be held **March 24, 1998**.

If you are a UBC author, please contact Margaret Friesen Main Library, Room 501 822-4430/fax:822-3335 e-mail: mfriesen@unixg.ubc.ca by **January 31, 1998**.

Accommodation

PENNY FARTHING INN 2855 West 6th. Heritage House, antiques, wood floors, original stained glass. Ten minutes UBC and downtown. Two blocks from restaurants, buses. Scrumptious full breakfasts. Entertaining cats. Views. Phones in rooms. Call (604) 739-9002. E-mail: farthing@uniserve.com.

B & B BY LOCARNO BEACH Walk to UBC along the ocean. Quiet exclusive neighborhood. Near buses and restaurants. Comfortable rooms with TV and private bath. Full breakfast. Reasonable rates. Non-smokers only, please. Call 341-4975.

ENGLISH COUNTRY GARDEN B & B Warm hospitality awaits you at this centrally located view home. Lg rms with private bath, tv, phones, tea/coffee, fridge. Full breakfast, close to UBC, d/t and bus routes. \$50-70 sgl; \$80 dbl. Call or fax 737-2526.

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MODERN 1 BR furn. garden level bsmt suite. 5 min to UBC. Private entrance N/Pets, N/S. Suitable for one occupant. \$900 incl util. Avail Jan 1/98. Call 224-9319.

Accommodation

KITSILANO Charming 1 BR suite, main floor in quiet heritage house. Stain glass, F/P, D/W, W/D. Lease required, ref required. N/S, N/Pets. \$980 plus util. Avail immed. Call pager 667-1354.

FURNISHED equipped suite at King Edward/McDonald available Feb. 1 for whole month or shorter period. 10 mins to UBC #25 bus at door. NS/NP. Rent negotiable. 34-5734 or 667-5544 email: brendaj@axionet.com

Leaders of Tomorrow Volunteer Recognition Awards Call for nominations

Volunteer Vancouver is seeking nominations for its eleventh annual Volunteer Recognition Awards.

The Leaders of Tomorrow Awards, co-sponsored by the University of British Columbia and Simon Fraser University, honour young people for their outstanding contributions and strive to inspire others to similar service. These awards recognize youth 17 years of age and under, and separately, youth aged 18 to 25.

Nomination forms are available from Volunteer Vancouver at 875-9144.

Deadline for nominations: Feb. 6, 1998

Russ Wigle **Tel: 669-1143**
Investment Advisor **Fax: 669-0310**

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3432 W. Broadway 732-4240

Deadlines 1998

DEADLINE AT NOON	Publication Date	Vol./ Issue	CALENDAR COVERS PERIOD:
Mon. Dec. 29	Jan. 8	44/01	Jan. 11-Jan. 24
Tues. Jan. 13	Jan. 22	44/02	Jan. 25-Feb. 7
Tues. Jan. 27	Feb. 5	44/03	Feb. 8-Feb. 21
Tues. Feb. 10	Feb. 19	44/04	Feb. 22-Mar. 7
Tues. Feb. 24	Mar. 5	44/05	Mar. 8-Mar. 21
Tues. Mar. 10	Mar. 19	44/06	Mar. 22-Apr. 4
Mon. Mar. 23	Apr. 2	44/07	Apr. 5-Apr. 18
Tues. Apr. 7	Apr. 16	44/08	Apr. 19-May 2
Tues. Apr. 21	Apr. 30	44/09	May 3-June 13
Mon. May 11	May 21	44/10	no calendar
Tues. June 2	June 11	44/11	June 14-July 11
Mon. June 29	July 9	44/12	July 12-Aug. 15
Tues. Aug. 4	Aug. 13	44/13	Aug. 16-Sept. 5
Mon. Aug. 24	Sept. 3	44/14	Sept. 6-Sept. 19
Tues. Sept. 8	Sept. 17	44/15	Sept. 20-Oct. 3
Tues. Sept. 22	Oct. 1	44/16	Oct. 4-Oct. 17
Mon. Oct. 5	Oct. 15	44/17	Oct. 18-Oct. 31
Tues. Oct. 20	Oct. 29	44/18	Nov. 1-Nov. 14
Mon. Nov. 2	Nov. 12	44/19	Nov. 15-Nov. 28
Tues. Nov. 17	Nov. 26	44/20	Nov. 29-Dec. 12
Tues. Dec. 1	Dec. 10	44/21	Dec. 13-Jan. 9

For further information please contact *UBC Reports* at Public Affairs Office. Phone 822-3131. Fax 822-2684. 310-6251 Cecil Green Park Road, Vancouver, BC, V6T 1Z1.

Calendar

UBC Reports carries a two-week calendar of UBC-sponsored events in each issue. Submissions are published free of charge and are accepted from all UBC departments. **To appear in the pertinent issue, submissions must be received by the deadline for that issue as noted in the accompanying Deadlines section.**

To submit an event for publication, please:

1. Type or clearly print your submission on the following form and limit it to 35 words.
2. Fax this form to the Public Affairs Office at 822-2684.

It is the submitting department's responsibility to ensure that all information is correct.

Event: Seminar Lecture Workshop Concert
(circle one) Other _____

Date(s): _____

Title: _____

Speaker(s): _____
(please specify: name, title, department and other affiliations)

Building: _____ **Room #:** _____

Time: _____ **Tel. # for information:** _____

Additional Information: _____
(fees, refreshments, etc.)

Submitted by: Name _____

Department _____

Telephone _____

For further information please contact *UBC Reports* at Public Affairs Office. Phone 822-3131. Fax 822-2684. 310-6251 Cecil Green Park Road, Vancouver, BC, V6T 1Z1.

UBC REPORTS

ADVERTISING RATES 1998

Circulation: 37,000

Distribution: Twice monthly on the UBC campus and in *The Courier* on Vancouver's West Side except once a month in June, July, August and December

Mechanical Requirements

Page Size: 260mm (W) x 390mm (H) (10.25" x 15.5")

Columns: five per page
Black and white copy only

Display ad rates:

\$15.50 per column inch, GST not included

Full page (260mm x 390mm, 10.25" x 15.5")	\$867.00
1/2 page (260mm x 195mm, 10.25" x 7.75")	\$579.00
1/4 page (152mm x 178mm, 6" x 7")	\$348.00
1/8 page (100mm x 120mm, 4" x 4.75")	\$156.00
1/16 page (48mm x 127mm, 1 7/8" x 5")	\$81.00
Business card (100mm x 50mm, 4" x 2")	\$65.00

Classified ad rates:

\$16.50 for 35 words or less, GST included. 50 cents for each additional word.

Discounts:

3-9 ads	10%
10+ ads	20%

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2 columns (100mm) x 50mm

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1/4

3 columns
(152mm) x 178mm

\$348

1/16

1 column
(48mm) x 127mm

\$81

1/2

5 columns
(260mm) x 195mm

\$579

For advertising information call Public Affairs at (604) 822-3131

Profile

Unlocking science's sanctum

Prof. Tony Griffiths wants to help students discover a new way of thinking

by Stephen Forgacs

Staff writer

Plasmids, generally speaking, are the good-for-nothing freeloaders of the molecular world. DNA fragments, they hang out in a host's cell, replicating steadily, and occasionally hopping over to another host when the opportunity arises.

Usually they're neutral passengers, neither harming, nor providing any service to the host. They exist, it seems, for the sake of existing.

Tony Griffiths, a genetics professor in UBC's Botany Dept., has spent years studying plasmids, particularly those found in the wild fungus *Neurospora*. Despite their usually benign existence, Griffiths views plasmids as an important gateway to a greater understanding of diverse molecular processes and the properties of DNA, the hereditary material of life.

Griffiths' plasmid research, the way he tells it, has all the elements of a mystery novel — vagrants, unsuspecting hosts, killers, battles and twists and turns. The more you get into it, the more intriguing it becomes.

The desire to know "who dunnit" is what Griffiths would like to see students gaining from their science education.

Griffiths' desire to help students is part of the reason he has literally written the book on genetics. In fact, his widely used genetics textbook, *Introduction to Genetic Analysis*, is now in its sixth edition. It seems appropriate that Griffiths, who sees science as a fundamental tool for understanding the world, should be particularly drawn to genetics.

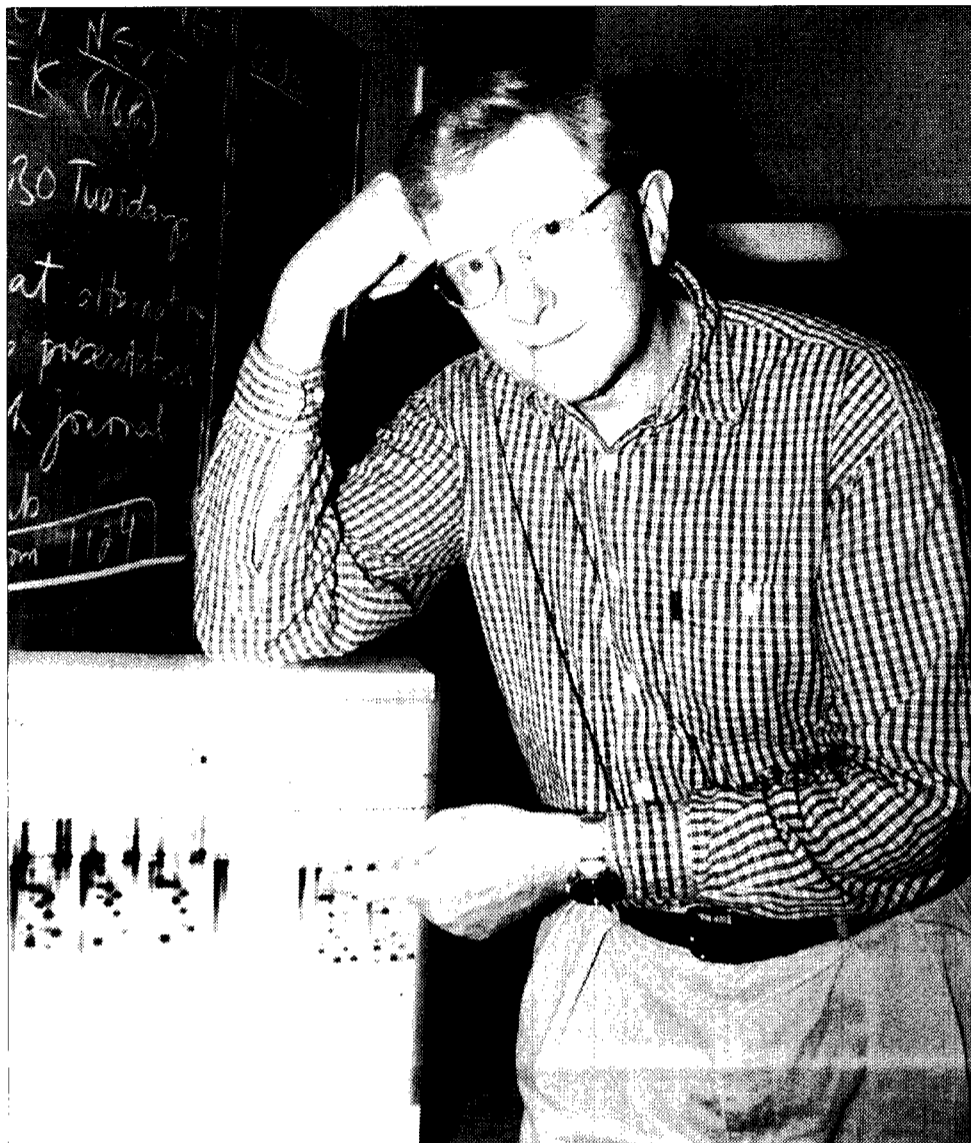
The characteristics of all living things are determined by their genetic composition. An organism's genes or hereditary determiners are found in chromosomes, linear threads in the cell nucleus. Chromosomes contain the DNA (deoxyribonucleic acid), which transmits genetic information.

Neurospora plasmids are found in mitochondria, cell components which provide the cell's energy, and have been found at locations around the world. The presence of the same plasmid in geographically isolated locations has led to speculation about their origins.

"One of the ideas we have about plasmids is that they are very old," says Griffiths. "It's possible plasmids have been around since before the divergence of species in evolution and have since been inherited through different channels of evolution."

Further mystery surrounds the fact that some fungus populations are plasmid free, even when other populations of the same strain have been found to host plasmids. This suggests the possibility that strains can get rid of plasmids by blocking their replication in some way.

Then there's Kalilo, named after a Hawaiian word meaning "hovering between life and death." Contrary to the usual plasmid policy of non-interference, Kalilo is a killer.



Stephen Forgacs photo

Award-winning geneticist Prof. Tony Griffith's love of hunting down the genetic makeup of killer plasmids is balanced by his keen interest in finding new ways to hook students into lifelong learning.

Found initially by Griffiths in a Hawaiian fungus, Kalilo is one of a few plasmids which do seem to have an impact on their host. Kalilo replicates within the host mitochondria for a certain period with no apparent effect before suddenly integrating into the host's DNA molecules, disrupting their function and leading to sudden cell death.

"The fungus can be growing at a rate of 10 centimetres per day and then one day it just stops. It won't take up nutrients and can't be revived."

Griffiths describes the presence of plasmids in their fungal hosts as an ongoing war in which hosts occasionally succeed in mutating or finding other ways to kick out plasmids, while plasmids seize the opportunity to move from host to host and sometimes strike a fatal blow.

Since Griffiths' initial discovery of the Kalilo plasmid in Hawaiian fungus, it has been found in many different parts of the world, in different *Neurospora* species and in at least one other genus of fungus, *Gelasinospora*.

Although any potential use of the Kalilo plasmid lies a long way down the research road, Griffiths says killer plasmids could eventually be used to control pathogenic fungus and agricultural pests such as rusts or blights.

Ironically, the presence of another plasmid appears to lengthen the life span of a particular fungus strain, which dies in considerably less time if the plasmid is not present.

Despite the mystery surrounding plasmids and their strange behaviour, Griffiths believes lessons learned from the study of *Neurospora* plasmids may well shed light on the importance of

other so-called selfish DNA such as transposons — also called jumping genes because they can hop from one chromosome to another — which are found in plants and animals, including humans.

Science, says Griffiths, is a vital key that can open doors to thousands of mysteries. It is this appreciation of science as a tool, and a language, that has motivated Griffiths to direct the mental energy he doesn't expend on plasmids into finding ways to enhance teaching and learning. Griffiths wants students to leave university with a new way of thinking, of seeing things, and of trying to understand the world around them.

"My involvement in trying to improve teaching and learning stems from the fact that I love science thinking," he says.

"Science is a way of knowing about not only your research, but about everything — your environment, your life. It's something that pervades our lives. And I don't think students always get as much of a sense of this, and an appreciation for science, as they should."

At UBC, Griffiths has focused on improving genetics education. He found students with backgrounds in fields such as biology were having more trouble picking up genetics than students from more quantitative fields such as physics and mathematics.

"Students sometimes have a great deal of difficulty with genetics, usually because they have not encountered that kind of thinking before. Genetics centres largely on active data processing, so we're generating ways for them to get actively involved with data in

tutorials, by working in groups and by working on their own."

Recently, Griffiths has been developing training programs and a handbook to help graduate students who work as teaching assistants lead discussions and promote interaction during tutorial sessions. Supported by the university's teaching and learning enhancement fund, these initiatives come as part of an effort to get students more actively involved in the learning process.

"We're trying to steer away from the idea, which dates back to a time when there were no books, of students sitting passively in lectures and just taking notes," he says.

Griffiths' activities in this area are in keeping with an international trend in science education and university education in general — student-centred learning, a learning process based on active and interactive student learning experiences.

Griffiths is also trying to give much younger students a head start in science education through his involvement with the Association for the Promotion and Advancement of Science Education (APASE), a B.C.-based non-profit organization dedicated to "inspiring curiosity, innovation and lifelong learning through science education."

The organization offers a range of services, such as workshops, publications, and Web-based resources to elementary school teachers and students. It is also working with B.C.'s English-as-a-Second-Language (ESL) community through a unique program to promote "environmental citizenship" among new Canadians. Integrated into the broader ESL curriculum regarding the principles of citizenship, the program helps students develop a sense of place and belonging in their neighbourhoods while drawing attention to environmental concerns such as waste reduction, recycling and energy and water conservation.

Griffiths, who earlier this year was awarded the Genetics Society of Canada's 1997 Award of Excellence for his contributions to genetics research and education, regards his efforts as a small part of a much larger movement to bring about needed changes in science education.

"Science moves so fast now that sometimes it seems all we want to do is to tell students how wonderful our own areas are and about all the latest developments. But somewhere along the line the baby is getting thrown out with the bath water and the deeper understanding skills aren't always getting across," he says.

And Griffiths feels the emphasis on information rather than analysis that sometimes occurs in education is actually reflective of a larger problem.

"It really is a societal thing," he says. "We live in a society so full of distractions that the quiet consideration of things is just not on for young people anymore. They're distracted by video games and television. When are they going to sit down and look at plants and animals?"